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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 08/772,259 | 12/23/1996 | KAYOKO MASAKI | 1185.1018/JD | 5740 |
| 21171 | 7590 | 06/08/2006 | EXAMINER | |
| STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005 | | | NGUYEN, THONG Q | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2872 | |

DATE MAILED: 06/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/772,259

Applicant(s)

MASAKI ET AL.

Examiner

Thong Q. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-6,9 and 12-22 is/are pending in the application.
- 4a) Of the above claim(s) 18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-6, 9, 12-17 and 19-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The present Office action is made in response to the amendment filed on 3/22/2006. It is noted that in the amendment, applicant has amended claim 4 and added a new set of claims, i.e., claims 12-22, into the present application.

As amended and newly-added, the pending claims 4-6, 9 and 12-22 are subjected to the following restriction. Noted that claims 1-3, 7-8 and 10-11 were canceled by the amendment of 10/3/01 and 9/12/05.

Election/Restrictions

2. Newly submitted claim 18 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

The device as claimed in the newly-added claim 18 is directed to a light control element including a light entrance side and only portions of light entrance side include an inner light diffusible surface (see claim 18, lines 5-6). Such structure of the light entrance side whose only portions include an inner light diffuse surface is directed to a species which is different from the species related to a light control element having an entrance side with a prismatic surface of repeated projections wherein at least part of the projections include light diffuse surface as claimed in amended claim 4 and new claims 12, 15, and 21.

3. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 18 has been withdrawn from

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consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03. Claims 4-6, 9, 12-17 and 19-22 are examined in this Office action.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 4-6, 9, 12-14, 19, 21 and 22 are rejected under 35 U.S.C. 112, first paragraph, for the following reasons.

a) Claim 4 is rejected under 35 USC 112, first paragraph because the specification, while being enabling for making the first slope or the second slope or both slopes of each projections of the prismatic surface of the light control element as diffusible surface(s), does not reasonably provide enablement for using only the second slope of each projections of the prismatic surface of the light control element (see claim 4, line 19) or only part of the repeated projections (see claim 12, line 8 and claim 21, line 12) as diffusible surface. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims.

b) The remaining claims are dependent upon the rejected base claim and thus inherit the deficiency thereof.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 4-6, 9, 12-17, 19-21 and 22, as best as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art described at pages 1-5 and illustrated in figures 11-12 in view of Watai (Japanese reference No. 6-250182, of record).

The optical device as provided by the prior art which is described in the present specification at pages 1-5 and illustrated in figs. 11-12 comprises 1) a light source apparatus having a lamp (7) and a reflector (8); 2) a light guide plate (2) having a light entrance surface (T) for receiving light from the light source apparatus, an exit surface and an inclined surface inclined so that the light guide plate gradually decreases away from the light entrance surface in thickness; 3) a reflecting plate (4) disposed adjacent to the inclined surface of the light guide plate (2); and 4) a light control plate (5) having an emitting surface and an entrance surface having a prismatic configuration which entrance surface faces the exit surface of the light guide plate (2). It is also noted that the light control plate (5) comprises the following features: First, the prismatic configuration comprises a plurality of triangular-shaped projections which are extended in one common direction and repeatedly arranged in a direction perpendicular to the mentioned common direction. It is noted that each triangular-shaped projections of the prismatic configuration formed on the entrance surface of the light control

plate comprises a first slope which is a light source side slope and the second slope which is an exiting slope being opposite to the light source side slope; and second, the emitting surface of the light control plate is spaced from the entrance surface of the light control plate as can be seen in figures 11-12.

As a result of such a structure, the optical device of the prior art meets almost the structure of the device as claimed in the present application. However, the optical device of the prior art does not disclose that only part of the slopes, i.e., the second slope, of each prism of the prismatic configuration of the light control plate defines a diffusing surface for the purpose of generating diffused light in a substantially uniform manner and simultaneously reducing the effects of the reflecting plate.

Regarding to the feature that the only second slope or a portion of the repeated projections is a diffusible surface as claimed, such feature is not critical to the invention as admitted by the applicant in the present specification. The support for that conclusion is found in the present application in pages 12-13 and figs. 6-8. In other words, in the embodiment described in pages 12-13 and shown in fig. 6, the diffusible surface is formed on the first slope, not the second slope. In the embodiments as described in page 13 and shown in figs. 7-8, both the first and second slopes are diffusible slopes.

It is also noted that the use of a light control plate having a prismatic configuration wherein the whole slant/slope surfaces of the prismatic projections or only part of the slopes of each prism constituting the prismatic configuration is

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made as a roughed surface which defines a diffusing surface is disclosed in the art as can be seen in the light control device disclosed by Watai. In particular, Watai discloses a light control plate and teaches the use of a light diffusing profile on a prismatic surface. The roughened pattern formed on two slopes of each prismatic projection, see section [0006]-[0012] and fig. 1 or the roughed pattern formed on only one slope of each triangular-shaped projection, see section [0013] and fig. 2, as provided by Watai will diffuse the light passing through the projection. It is also noted that the formation diffusing pattern on at least one part of the slopes of each prism as suggested by Watai is for the purpose of providing a uniform pattern of light in comparison with the use of prismatic configuration without diffusing pattern of the prior art. See sections [0002]-[0005] and figs 5-8. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the optical device having a means in the form of a prismatic configuration formed on the entrance surface of a light control plate as provided by the prior art by making at least one slope or side which includes the (second) exist slope of each prism of the prismatic configuration as a roughed surface as suggested by Watai for the purpose of controlling diffusing light with substantially uniform manner. It is also noted that while Watai does not clearly state that the formation of roughed surfaces in the prismatic configuration of the light control plate will reduce the effects of the reflecting member; however, one skilled in the art will recognize that (s)he will apply/make roughed surface(s) on one or both slopes of each prism and in particular on at least the slope which

causes the light effects of the light reflecting element as a roughed surface for the purpose of eliminating such effects because such use of roughed surface(s) on one or both slopes of each prism of the prismatic configuration as suggested by Watai will make the conventional device described in pages 1-5 and shown in figures 11-12 have a structure which is very similar to that of the device as claimed; therefore, it is expected that the combined product will yield the same result, i.e., reduction the effects of the light reflecting plate used in the device.

8. Claims 4-6, 9, 12-17, 19-21 and 22, as best as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art described at pages 1-5 and illustrated in figures 11-12 in view of Inoue (U.S. Patent No. 5,506,924).

The optical device as provided by the prior art which is described in the present specification at pages 1-5 and illustrated in figs. 11-12 comprises 1) a light source apparatus having a lamp (7) and a reflector (8); 2) a light guide plate (2) having a light entrance surface (T) for receiving light from the light source apparatus, an exit surface and an inclined surface inclined so that the light guide plate gradually decreases away from the light entrance surface in thickness; 3) a reflecting plate (4) disposed adjacent to the inclined surface of the light guide plate (2); and 4) a light control plate (5) having an emitting surface and an entrance surface having a prismatic configuration which entrance surface faces the exit surface of the light guide plate (2). It is also noted that the light control plate (5) comprises the following features: First, the prismatic configuration comprises a plurality of triangular-shaped projections which are extended in one

common direction and repeatedly arranged in a direction perpendicular to the mentioned common direction. It is noted that each triangular-shaped projections of the prismatic configuration formed on the entrance surface of the light control plate comprises a first slope which is a light source side slope and the second slope which is an exiting slope being opposite to the light source side slope; and second, the emitting surface of the light control plate is spaced from the entrance surface of the light control plate as can be seen in figures 11-12.

As a result of such a structure, the optical device of the prior art meets almost the structure of the device as claimed in the present application. However, the optical device of the prior art does not disclose that only part of the slopes, i.e., the second slope, of each prism of the prismatic configuration of the light control plate defines a diffusing surface for the purpose of generating diffused light in a substantially uniform manner and simultaneously reducing the effects of the reflecting plate.

It is also noted that the use of a light control plate having a prismatic configuration wherein the whole slant/slope surfaces of the prismatic projections is made as a roughed surface which defines a diffusing surface is disclosed in the art as can be seen in the light control device disclosed by Inoue. In particular, Inoue discloses a light guiding element having a prismatic pattern formed on one surface thereof and teaches the use of a light diffusing profile on a prismatic surface. The roughened pattern formed on two slopes of each prismatic projection, see columns 3 6-7 and figs. 8 and 10 as provided by Inoue will diffuse

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the light passing through the projection. It is also noted that the formation diffusing pattern on at least one part of the slopes of each prism as suggested by Inoue is for the purpose of providing a uniform pattern of light in comparison with the use of prismatic configuration without diffusing pattern of the prior art. See columns 1-3. Regarding to the feature that the only second slope or a portion of the repeated projections is a diffusible surface as claimed, such feature is not critical to the invention as admitted by the applicant in the present specification. The support for that conclusion is found in the present application in pages 12-13 and figs. 6-8. In other words, in the embodiment described in pages 12-13 and shown in fig. 6, the diffusible surface is formed on the first slope, not the second slope. In the embodiments as described in page 13 and shown in figs. 7-8, both the first and second slopes are diffusible slopes.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the optical device having a means in the form of a prismatic configuration formed on the entrance surface of a light control plate as provided by the prior art by making at least one slope or side which includes the (second) exist slope of each prism of the prismatic configuration as a roughed surface as suggested by Inoue for the purpose of controlling diffusing light with substantially uniform manner. It is also noted that while Inoue does not clearly state that the formation of roughed surfaces in the prismatic configuration of the light control plate will reduce the effects of the reflecting member; however, one skilled in the art will recognize that (s)he will apply/make roughed surface(s) on

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one or both slopes of each prism and in particular on at least the slope which causes the light effects of the light reflecting element as a roughed surface for the purpose of eliminating such effects because such use of roughed surface(s) on one or both slopes of each prism of the prismatic configuration as suggested by Inoue will make the conventional device described in pages 1-5 and shown in figures 11-12 have a structure which is very similar to that of the device as claimed; therefore, it is expected that the combined product will yield the same result, i.e., reduction the effects of the light reflecting plate used in the device.

Response to Arguments

9. Applicant's arguments with respect to claims 4-6 and 9, now applied to claims 4-6, 9, 12-17, 19-21 and 22 as provided in the amendment, pages 7-11, have been fully considered but they are not persuasive for the following reasons.

A) Regarding to the rejection of claims 4-6 and 9, now applied to claims 4-6, 9, 12-14, 19, 21 and 22 under 35 U.S.C. 112, first paragraph, because the specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims, applicant's arguments as provided in the amendment, pages 8-11, have been fully considered but they are not persuasive.

The applicant has argued that the specification does provide support for the feature claimed. The Examiner respectfully disagrees with the applicant.

Applicant should note that the specification clearly discloses that the either the light source side slope or the exiting surface side slope of the projection can be

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formed as a diffusing surface. See present specification in page 12, lines 26+ through page 13, lines 9 and figs. 3 and 6-7. The specification has never disclosed that only the second slope (i.e., the exiting surface side slope) of the prismatic projection is a diffusing surface as recited in each of claims 4, 12 and 21. Applicant is respectfully invited to show which part/section of the specification discloses that only second slope or only part of repeated projection is a diffusing surface. Applicant should further note that the claim 15 of the present application has not been rejected under 35 USC 112, first paragraph because the specification supports for the language thereof "at least part of said slopes" (claim 15, line 12) is a diffusing surface.

B) Regarding to the rejection of claims 4-6 and 9 under 35 USC 103(a), applicant's statement that both the present application and the Patent No. 5,600,455 were commonly owned and assigned, see amendment, page 7, is sufficient to overcome the rejection of the claims 4-6 and 9 under 35 USC 103(a) set forth in the previous Office action.

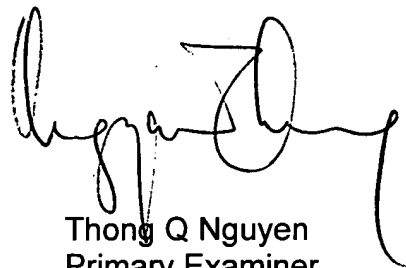
Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Nguyen whose telephone number is (571) 272-2316. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A. Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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A handwritten signature in black ink, appearing to read 'Thong Q. Nguyen', is positioned above the printed name.

Thong Q Nguyen
Primary Examiner
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